

REMARKS

Reconsideration of this application is respectfully requested. Claims 1-20 are pending in this application. Claims 1-10 stand rejected. Claims 11-20 were withdrawn from consideration as being directed to a non-elected invention.

Claim Rejections - 35 U.S.C. §102

Claims 1-10 are rejected under 35 U.S.C. §102(e) as being anticipated by Takahashi (USP 6,952,522).

This rejection is respectfully traversed.

Independent Claim 1

With regard to the claimed feature of *“predetermined information is first recorded in a work sector before performing primary recording as well as the number of mountings of the file system is further recorded in the work sector,”* regarding Applicants’ argument that:

Specifically, Takahashi only describes, in col.5, lines 56-63, a general explanation of the FAT system and it is not related to the feature of the present claimed invention. Takahashi teaches which area the main information is recorded on and Takahashi is different from the present claimed invention in the method of recording the directory for controlling the location of the main information (Please see col.6, lines 9-40 of Takahashi),

The Examiner alleges that, on page 2 of the Action:

Takahashi discloses the FAT is the one to store the information and the file is stored separately from the FAT. Such disclosure read on the claimed limitation (Col. 5, lines 56-63).

In other words, the Examiner appears to interpret the above-mentioned claimed feature as the general FAT system disclosed in Takahashi. However, it is submitted that the Examiner misunderstands the feature of the present claims.

Firstly, the main point of the present claimed invention is as follows;

The present claimed invention relates to a provision in case that the READ (recording) can not be performed for the corresponding sectors because of the power cut-off or vibration and so on while rewriting the sector of a directory. For this, the contents which are going to be written in the sector of a directory and the address of the sector are beforehand written in another area (a work sector area) and it is going to recover by overwriting the sector which is under rewriting by the contents in the work sector at the time of restarting after the power cut-off and so on.

The present claim recites, “predetermined information is first recorded in a work sector before performing primary recording as well as the number of mountings of the file system is further recorded in the work sector.” Then, with this claimed feature, original information can be recovered on the basis of information recorded in the work sector, and further, information about the number of mountings is also recorded in the work sector, preventing information from being recovered from an incorrect work sector. (Please see the paragraph [0016] of the present application.)

The number of mountings is important for the recovery as mentioned above.

Generally, the “mounting” means that it reads the Master Boot Record (MBR) of a hard disk drive device and makes a file system recognize and finally an operation of a hard disk drive is achieved.

Then, regarding the mounting process, it is described in the paragraph [0045] of the present application, “The mounting process of the hard disk 21 is a process to enable the digital processing unit 2 to use the file system in the hard disk 21.”

The number of the processes is the number of mountings.

And when there is a work sector in which the number of mountings is not incremented under the influence of power supply cutoff, vibration and so on, it is smaller than the number of mountings of other work sectors (header), namely, it will not be the maximum, and even if the work sector shows self as an effective work sector, it will be judged that it is invalid.

Thus, the number of mountings is necessary for judging it which is an effective work sector.

Again, claim 1 calls for the claimed feature of “*predetermined information is first recorded in a work sector before performing primary recording as well as the number of mountings of the file system is further recorded in the work sector*” (emphasis added).

On page 3, item 4 of the Action, the Examiner alleges, by relying on Col. 5, lines 56-63 of Takahashi, that:

[T]he location and attributes such as the number, the recording data & time and the file name of each file on the disc are controlled by referencing the FAT 11. The FAT 11 is used for controlling the information on files in smallest access units, typically sector units, used by the system, that is, the signal recording /playback apparatus for making an access to disc...

However, the alleged descriptions of Takahashi do not disclose the claimed feature of “*the number of mountings of the file system is further recorded in the work sector*.” A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

Specifically, the alleged paragraph of Takahashi describes:

In order to control files on the disc, the system controller 1 is provided with a FAT (File Allocation Table) 11. The location and attributes such as the number, the recording date & time and the file name of each file on the disc are controlled by referencing the FAT 11. The FAT 11 is used for controlling the information on files in smallest access units, typically sector units, used by the system, that is, the signal recording/playback apparatus for making an access to the disc. It should be noted that, in this embodiment, 1 sector is 2,048 bytes (or 2K bytes) in size (emphasis added).

Because Takahashi utilizes an ordinary FAT (File Allocation Table) 11 (please see Col. 6, lines 9-12), the number should be directed to a sector number. Moreover, such attribute information is more specifically described by Col. 6, lines 17-23:

FIG. 4 is a table showing an example of file system control information. Provided for a file, each entry of the table includes attribute information of the file such as the name of the file (that is, the name of a program stored in the file), a recording date & time, a recording channel, a recording time and a first sector of the file as shown in the figure (emphasis added).

Furthermore, Fig. 4 indicates the sector number as “**HEAD SECTOR NUMBER**.”

On the contrary, in the present claimed invention, the number of mountings of the file system is further recorded in the work sector. Moreover, this prevents information from being recovered from an incorrect work sector as described in the specification (page 3, bottom line to page 4, line 2).

The **HEAD SECTOR NUMBER** of the file of Takahashi is DIFFERENT FROM “the number of mountings of the file system.”

In view of the above, Takahashi fails to disclose or fairly suggest the claimed feature of “predetermined information is first recorded in a work sector before performing primary recording as well as the number of mountings of the file system is further recorded in the work sector,” as called for in claim 1.

Accordingly, claim 1 distinguishes over Takahashi.

Claims 2-6 are dependent from claim 1 and recite the additional features set forth therein. Accordingly, claims 2-6 also distinguish over Takahashi for at least the reasons set forth above.

Independent Claim 7

With regard to the claimed feature of *“information about the directory is written in the predetermined unit a plurality of times such that the plurality of the information about the directory written in the predetermined unit are separated from each other by a predetermined offset,”* the Examiner alleges that, on page 5 of the Action:

An additional signal is not split into segments to be each recorded into a free area with a length smaller than a predetermined value, typically a equivalent of 1-minute recording/play back length (Col. 5, lines 36-39).

However, as alleged by Applicants in the previous Response filed on December 24, 2008, Takahashi does not teach recording of “the information about the directory” (please see page 18 of the Response). The Examiner fails to address this claimed feature.

Takahashi relates to a technology for recording and playing back signals such as video and audio signals into and from an erasable recording medium.

The first problem addressed by Takahashi is that a reproduced video or audio signal is broken due to a seek time, a rotation wait time and a settle time if the video or audio signal is recorded into a recording medium being split into segments as shown in Fig. 21(1). As the second problem, even if a read buffer memory is provided for storing in advance the read out signal in order to prevent the playback signal from being broken, the amount of data stored in advance in the read buffer memory is not large enough in the case the recorded signal is split into a large number of segments as shown in Fig. 21(2).

In order to solve the problems, Takahashi provides a signal recording method whereby, in an operation to record a signal onto a recording medium, the signal is recorded in continuous free areas each having a size equal to or larger than a predetermined recording/playback time length (Col. 2, lines 6-11). This method of Takahashi is further described in the Examiner's alleged disclosure of Col. 5 lines 36-42 as:

As shown in the figure, an additional signal is not split into segments to be each recorded into a free area with a length smaller than a predetermined value, typically an equivalent of the 1-minute recording/playback time length. Instead, the additional signal is recorded into a continuous free area with a length equal to or larger than the 1-minute recording/playback time length (emphasis added).

Accordingly, Takahashi is solely directed to recording and playing back of a continuous data signal such as video signal or audio signal. Moreover, while the Examiner relies on Col. 5 lines 36-39 of Takahashi, the alleged "additional signal" should be directed to the continuous data signal such as video signal or audio signal.

On the contrary, an object of the present claimed invention is to make possible writing/reading of the information about the directory in a file system which manages files hierarchically by files on which a main information is recorded and a directory which is a storage place of a plurality of files, even if there are accidents, such as power supply cutoff. In other words, the feature of the present claimed invention is in the method of recording directory information. The information about the directory is DIFFERENT FROM the video or audio signal.

In view of the above, Takahashi fails to disclose or fairly suggest the claimed feature of “information about the directory is written in the predetermined unit a plurality of times such that the plurality of the information about the directory written in the predetermined unit are separated from each other by a predetermined offset,” as called for in claim 7.

Accordingly, claim 7 distinguishes over Takahashi.

Claims 8-10 are dependent from claim 7 and recite the additional features set forth therein. Accordingly, claims 8-10 also distinguish over Takahashi for at least the reasons set forth above.

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Art Unit: 2162

Request for Reconsideration under 37 CFR §1.116
Attorney Docket No.: 063113

In view of the foregoing, it is submitted that all pending claims are in condition for allowance. A prompt and favorable reconsideration of the rejection and an indication of allowability of all pending claims are earnestly solicited.

If the Examiner believes that this application is not now in condition for allowance, the Examiner is requested to contact Applicants' undersigned attorney to arrange for an interview to expedite the disposition of this case.

If this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. The fees for such an extension or any other fees that may be due with respect to this paper may be charged to Deposit Account No. 50-2866.

Respectfully submitted,

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